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A SURVEY INSTRUMENT FOR IDENTIFYING CLUSTERS OF KNOWLEDGE AND COMPETENCIES ASSOCIATED WITH PERFORMANCE OF FOOD SERVICE WORK, REPORT NUMBER 9.

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AS AN INITIAL STEP TOWARD IMPROVING VOCATIONAL CURRICULUMS IN FOOD SERVICING, A SPECIAL RESEARCH TEAM DEVELOPED AND FIELD TESTED A SURVEY INSTRUMENT FOR OBTAINING UP-TO-DATE INFORMATION ABOUT MAJOR TYPES AND COMBINATIONS OF TASKS PERFORMED BY FOOD SERVICE WORKERS. THE INSTRUMENT COVERED THE FOLLOWING BASIC TASKS OF FOOD SERVICING--(1) FOOD PREPARATION, (2) MANAGEMENT AND SUPERVISION OF COMMERCIAL AND INSTITUTIONAL FOOD SERVICE ESTABLISHMENTS, (3) MISCELLANEOUS TASKS OF FOOD SERVICE ESTABLISHMENTS, INCLUDING MAINTENANCE, CASHIERING, AND CLERICAL AND SECRETARIAL SUPPORT, (4) FOOD PURCHASING, AND (5) FOOD SERVING AND MENU PLANNING. FIELD TESTING WAS DONE WITH FOOD SERVICE EMPLOYEES OF A MODERN HOSPITAL AND HOTEL, UNIVERSITY DINING HALLS, AND THREE HIGHWAY RESTAURANTS. A COPY OF THE COMPLETED INSTRUMENT WAS PRESENTED. THIS VOLUME REPRESENTS PART 9 OF A 13-PART FINAL REPORT ON THE VOCATIONAL-TECHNICAL EDUCATION RESEARCH AND DEVELOPMENT PROJECT OF WASHINGTON STATE UNIVERSITY. RELATED VOLUMES ARE ED 010 652 THROUGH ED 010 664. (JH)

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A SURVEY INSTRUMENT FOR IDENTIFYING CLUSTERS OF KNOWLEDGE AND COMPETENCIES ASSOCIATED WITH PERFORMANCE OF FOOD SERVICE WORK

December 1966

U.S. DEPARTMENT OF
HEALTH, EDUCATION, AND WELFARE

Office of Education
Bureau of Research

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Project No. ERD-257-65
Contract No. OE-5-85-109
Report No. 9

by

Harold F. Rahmlow
LeRoy Johnson
Catherine Cavanagh

December 1966

The research reported herein was performed pursuant to a contract with the Office of Education, U.S. Department of Health, Education, and Welfare. Contractors undertaking such projects under Government sponsorship are encouraged to express freely their professional judgment in the conduct of the project. Points of view or opinions stated do not, therefore, necessarily represent official Office of Education position or policy.

Department of Education, Washington State University, Pullman, Washington
State Board for Vocational Education, Olympia, Washington

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INTRODUCTION

Task and Knowledge Clusters Concepts

One major purpose of this project is to identify clusters of knowledge and competencies most likely to maximize the career-long occupational opportunity, competence, and choice of non-college bound youth in an evolving technological society.

This research is rooted in the philosophic premise that occupational freedom involves both informed choice of alternatives and competence to work effectively. The economy needs constantly larger numbers of workers possessing new capabilities. But youth can evaluate only those occupational choices that they perceive. They are free to perform only the kinds of work for which they acquire competence.

Choice and acquisition of competence may be needlessly impaired by limited outlooks and motivations. For those reasons, studies of occupational perceptions, aspirations constitute other dimensions of this project.

The objective of our clusters research is to obtain facts about what major types of tasks are actually performed in occupations most likely to provide employment opportunity for substantial percentages of non-college bound youth and to identify major types of knowledge most likely to prepare them for such work. On the basis of Bureau of Labor Statistics projections, the following occupational areas were selected for study: office, general merchandise retailing, building trades, electronics, food services, and child care.

To obtain task and knowledge data for clustering, the staff, in consultation with employers, employees, and vocational teachers, prepared questionnaire check lists designed to identify specific major tasks actually performed by workers in each of the occupational areas listed above.

Questionnaires were designed to obtain from employees data on age, sex, major types of tasks presently performed, length of time on present job, and other types of work done in the past five years.

Those questionnaires have been administered to representative samples of workers in each occupational area. To maximize the predictive value of data, questionnaires were administered only to employees in modernized leading-edge firms in which tasks are most likely to represent those prevailing in the foreseeable future.

Results provide data on (1) combinations of major tasks groups of workers on a construction job or in a firm or agency presently perform, (2) combinations of major tasks performed on entry jobs, and (3) combinations of tasks generally performed by workers with various degrees of experience, and (4) some data on 5-year combinations of worker experience.

From analysis of the above data, we have obtained up-to-date facts about combinations of major tasks performed by major categories of workers.

Knowledges associated with performance of each task are being identified by juries of employees, supervisors, and vocational teachers.

Both task and knowledge items are being coded so various patterns of relationships can be identified by computer.

From analysis of the above data, we are obtaining definitions of both tasks and knowledges involved in entry jobs and in positions into which workers can move as they get experience. We are identifying (1) some clusters of knowledge useful within each occupational area and (2) some clusters that are commonly useful in two or more areas.

Facts about currently useful tasks and knowledge are being supplemented by studies of ways they will be affected by equipment, processes, and materials now being developed by leading-edge industries.

Purpose and Objectives

Vocational educators need a means of identifying major types of tasks involved in food service work and the knowledges and competencies involved in their performance.

The objective of this phase of Project ERD-257-65 is to develop a survey instrument for identification of major tasks performed by workers employed in establishments and institutions providing food service. The instrument will be utilized to obtain data that will provide up-to-date facts about combinations of work done by various categories of food service workers; provide a base for identification of clusters of knowledges and competencies essential for effective performance of those tasks; and ascertain the degrees to which such knowledges and competencies are congruent with those essential for work in other non-professional occupations.

Hypothesis

Experience and data indicate the logic of a hypothesis that many of the major tasks performed by food service workers require clusters of similar knowledges and competencies and that some types of work require specialized knowledges. For example, it is likely that many persons in a variety of jobs use knowledge of health regulations and sanitation principles in the preparation of foods. Likewise, a smaller group of persons working in nursing homes and hospitals are likely to need knowledge of specialized medical diets.

Schools preparing youth for food service occupations have need for up-to-date information about widely useful clusters of tasks and knowledges and about those that are more specialized. It is assumed that identification

of both common and specialized knowledges and competencies along with their relationships to work in other occupations will provide a base for development of useful instructional programs.

Related Research

U.S. Department of Commerce data shows that between 1954 - 1964 expenditures for purchased meals and beverages have increased 28.4 per cent(1). Projections indicate that that upward trend will continue.

The 1966-67 Edition of the Occupational Outlook Handbook (2) estimates that through the mid 1970's food service will annually provide approximately 150,000 openings. Ehle (3) notes trends toward enhancement of hospitality services and predicts accelleration of that trend.

Meek (4) projects a steady expansion of restaurant services through 1985. He indicates the industry's heavy reliance on schools to train food service workers and emphasizes the need to identify the nature of "the more common jobs" and to identify the capabilities required for their performance.

A 1965 report (5) on 338 food service training projects financed by Manpower Development and Training Act funds can be assumed to reflect general employment opportunity for bakers, chefs, cooks, countermen, kitchen helpers, pantrymen, waiters, waitresses and roundsmen.

Ryan (6) predicts that further development of automated equipment and preprocessed foods will tend to reduce need for unskilled restaurant kitchen workers.

The 1961 U.S. Department of Health, Education and Welfare report on the Food Service Industry, Training Programs and Facilities (7) foresees expanding opportunity for employment in food service managerial, production, sales, service and sanitation work. The report also conceptualizes tasks associated with performance of such work.

In 1964 USOE issued a Suggested Training Program: Supervised Food Service Worker (8) that lists tasks performed by some major categories of food service employees.

METHOD

Conceptualization of Tasks

A team of Home Economists, managers of food service establishments from Washington State University and the Washington State Department of Education and food service employees worked cooperatively to conceptualize

the tasks listed on the instrument reproduced in Appendix A. The items are arranged on the instrument in clusters congruent with structures that are deemed useful by subject matter experts and are also recognized as realistic by employees who utilize the instrument. Throughout the conceptualization phase, there was repeated checking and rechecking of items to increase their clarity. Food service personnel offered many useful comments during this phase of the work.

Field Testing

The initial draft of the instrument was field tested with food service employees of a modern hospital and hotel, University dining halls, and three highway restaurants. Those establishments constitute major elements of the food service industry. The questionnaire was administered to a representative sample of employees in those establishments. It was also used as a basis for personal interview with the same persons. Comparison of the results of the two methods of obtaining the data and discussions with the subjects who had completed the instrument provided a basis for revision.

The results obtained from questionnaires checked by employees and that obtained from employee interviews were found to be in very close agreement. Space had been provided on the questionnaire for the employees to list additional tasks which they performed, but which were not listed in the questionnaire. Employees added only six additional tasks. In some cases, added items reflected a misunderstanding of wording of some original items. In these cases, the original task items were modified to clarify their meaning.

RESULTS

A copy of the completed questionnaire is reproduced in Appendix A.

RECOMMENDATIONS

A representative sample of commercial and institutional food service employees is being identified. It is recommended that the instrument be utilized to obtain data that will (1) provide up-to-date facts about combinations of work done be various categories of food service workers, (2) provide a base for identification of clusters of knowledges and competencies essential for effective performance of tasks constituting work patterns, and (3) ascertain the degrees to which such knowledges and competencies are congruent with those essential for work in other non-professional occupations.

DISCUSSION

The major types and combinations of tasks performed by various categories of food service workers can be conceptualized and identified. Experience derived from other phases of Project ERD-257-65 work indicate that the task items listed on the questionnaire can be utilized to identify clusters of knowledges and competencies common to entry and later-career work patterns. Those unique to specialized tasks can also be identified. That information will provide partial bases for planning curriculum and developing instructional materials that will increase pupils' vocational capabilities.

The cooperative nature of this project has increased communication between vocational educators and personnel directing food service establishments and institutions. This closer working relationship provides a base for more mutually beneficial working relationships in the future.

SUMMARY

The steady growth of the food service industry offers substantial employment opportunity for more non-college bound youth. To plan appropriate training programs, vocational educators need means of obtaining accurate information about the nature of tasks involved in modern food service occupations, the knowledge and competencies essential for performance of those tasks, and the similarities of such elements to those required for work in other occupations. In cooperation with employers and employees, this Project has developed a questionnaire that will enable educators to obtain such information.

The instrument can be utilized to obtain data that will (1) provide up-to-date facts about combinations of work done by various categories of food service workers, (2) provide a base for identification of clusters of knowledges and competencies essential for effective performance of tasks constituting work patterns, and (3) ascertain the degrees to which such knowledges and competencies are congruent with those essential for work in other non-professional occupations.

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APPENDIX A

FOOD SERVICE TASK SURVEY INSTRUMENT

You can help our schools give your sons and daughters the kinds of education they need to earn good incomes.

As you know, many changes are taking place in the kinds of work people do. Schools need up-to-date facts about exactly what kinds of work are being done. Those facts will help schools provide useful training.

You have been selected to help with a nation-wide study to show what actual kinds of work people in various occupations do.

The information will be STRICTLY CONFIDENTIAL.

Your cooperation is appreciated and will help your schools prepare young people to earn good incomes.

After you have completed the attached questionnaire, return it promptly, in the enclosed self-addressed envelope. No postage is necessary.

This Project is sponsored by:

Washington State University
University of Idaho
Washington State Board for Vocational Education
Idaho State Board for Vocational Education

1. Name _____

2. Present Job Title _____

3. Name of Employing Agency _____

4. Address of Employing Agency _____

5. ☐ Male ☐ Female

6. Age: ☐ Under 20 ☐ 20-30 ☐ 31-50 ☐ Over 50

7. Draw a circle around the highest grade you completed in school:

grade 6	High school graduate
grade 7	1 year of college
grade 8	2 years of college
grade 9	3 years of college
grade 10	College graduate
grade 11	

8. For how many years have you been in your present occupation?

Less than 1 year 1-5 years More than 5 years

9. How many times have you changed jobs in the past 5 years? Check the correct box below.

☐ 0 times
☐ 1 - 2 times
☐ 3 or more times

10. Please list other types of work you have done in the past 5 years.

_____

_____

_____

_____

_____

_____

INSTRUCTIONS

The following pages list tasks some people who work in food service occupations do.

Please read each task listed

Check (✓) "YES" for all of the tasks you perform as part of your work. Check (✓) "NO" beside all of the tasks you do not perform as part of your work. PLEASE CHECK ALL ITEMS.

DO NOT CHECK A TASK "YES" UNLESS YOU HAVE ACTUALLY PERFORMED IT IN THE LAST TWO (2) YEARS.

PLEASE BE SURE TO CHECK EACH ITEM EITHER "YES" OR "NO".

Here is an example of how to check items:

YES	NO	
✓	___	Prepare beverages (A check of "YES" means that you do prepare beverages as part of your work.)
___	✓	Wash dishes (A check of "NO" means that you do not wash dishes as part of your work.)

Check (✓) "YES" beside the tasks you do as part of your work. Check (✓) "NO" beside the task you do not do as part of your work.
PLEASE CHECK EACH TASK EITHER "YES" OR "NO"

FOOD PREPARATION

YES	NO	
___	___	Prepare beverages
___	___	Prepare baked foods (breads, pastries, etc.)
___	___	Prepare desserts
___	___	Prepare soups
___	___	Prepare sandwiches
___	___	Prepare dehydrated or concentrated foods (reconstitute dry milk, instant potatoes)
___	___	Care of equipment
___	___	Store food
___	___	Wash dishes
___	___	Organize work area
___	___	Read menu
___	___	Prepare vegetables and fruits
___	___	Prepare meats, poultry, fish, eggs (protein foods)
___	___	Prepare salads
___	___	Prepare cereals
___	___	Selection and operation of equipment and utensils
___	___	Disposal of waste
___	___	Store equipment and utensils
___	___	Control pests and rodents
___	___	Comply with health and sanitation laws and regulations

MANAGEMENT

YES	NO	
___	___	Hire employees
___	___	Train employees
___	___	Determine policies, example: Portion size control, price setting, special services, safety
___	___	Interview prospective employees
___	___	Schedule and allocate work load
___	___	Comply with health and sanitation laws and regulations
___	___	Plan overall operational functions

PLEASE CHECK EACH TASK EITHER "YES" OR "NO"

MAINTENANCE

YES	NO	
___	___	Wash dishes
___	___	Clean and care for equipment
___	___	Repair equipment
___	___	Dispose of wastes
___	___	Store food
___	___	Control pests and rodents
___	___	Operate equipment
___	___	Replace parts
___	___	Clean floors, windows, wood work, counters
___	___	Store equipment and utensils
___	___	Comply with health and sanitation regulations

CASHIERING, CLERKING, SECRETARIAL

YES	NO	
___	___	Operate cash register
___	___	Make change
___	___	Check food orders
___	___	Keep records and inventory
___	___	Type menus, correspondence, etc.
___	___	Answer telephone
___	___	Check food to be served with menu
___	___	Prepare bills

SUPERVISION

YES	NO	
___	___	Train employees
___	___	Supervise employees
___	___	Comply with health and sanitation laws and regulations
___	___	Schedule and allocate work load
___	___	Administer first aid

PRUCHASING

YES	NO	
___	___	Order food
___	___	Purchase food
___	___	Order supplies
___	___	Purchase supplies
___	___	Establish records for purchasing goods
___	___	Purchase equipment
___	___	Storeroom control
___	___	Write specifications

PLEASE CHECK EACH TASK EITHER "YES" OR "NO"

PLAN MENUS

YES	NO	
___	___	

SERVING

YES	NO	
___	___	Serve food
___	___	Store food
___	___	Read menu
___	___	Set up table or tray
___	___	Arrange food for service
___	___	Clear away food
___	___	Store equipment
___	___	Comply with health and sanitation laws and regulations
___	___	Bus soiled dishes, etc.

OE 6500 (6-65) DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
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15. ABSTRACT *(250 words max.)*

A team of home economists, managers of commercial and institutional food service establishments, and food service employees conceptualized and field tested a survey instrument of obtain up-to-date facts about major types and combinations of tasks performed by food service workers.

A representative sample of food service workers is being identified. The instrument will be utilized to obtain data that will (1) provide up-to-date facts about combinations of work done by various categories of food service workers, (2) provide a base for identification of clusters of knowledges and competencies essential for effective performance of tasks constituting work patterns, and (3) ascertain the degrees to which such knowledges and competencies are congruent with those essential for work in other non-professional occupations.

16. RETRIEVAL TERMS *(Continue on reverse)*

Food service workers
Clusters of knowledge
Home economics, curriculum
Curriculum, food service workers

17. IDENTIFIERS

Vo-Tech. Ed. R and D project
ERD-257-65

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16. RETRIEVAL TERMS *(Continued)*			

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